CONTENTS TO VOLUME 45

Preface to the International Conference on Computing in High Energy Physics, Asilomar, 2-6 February 1987. W. Ash.	xiii
Wickens, F. The computing environment. A summary of the Asilomar Conference on Computing in High Energy Physics	1
Nash, T. Asilomar conference on managing complexity in high energy physics: a summary and renaming of the conference	9
Bock, R.K. Software issues for large detectors	15
Newman, H.B. Computing for HEP experiments: 1987–1997	27
Pohl, M. Multiprocessors for high energy physics	47
McCubbin, N.A. VM/CMS in the HEP community (HEPVM)	61
Booth, A.W. and J.T. Carroll An expert system for FASTBUS diagnosis	67
Montgomery, H.E. Status of (US) high energy physics networking	77
Carpenter, B.E., F. Fluckiger, J.M. Gerard, D. Lord and B. Segal Two years of real progress in European HEP networking: a CERN perspective	83
Cottrell, R.L.A. Analysis of network statistics	93
Toussaint, D. Supercomputations in QCD	111
Hauser, J. Vectorization of track finding and fitting algorithms for HEP	121
Miura, K. EGS4V: vectorization of the Monte Carlo cascade shower simulation code EGS4	127
Levinthal, D., H. Goldman, C. Georgiopoulos, J.L. DeKeyser, S. Linn, S. Youssef and M.F. Hodous Experimental HEP supercomputing at FSU	s 131
Brandt, L.E. The NSF national computing centers past, present, and future	14

Vialle, J.P. The U _A 1 3D graphics analysis system	149
Friedman, J.H., J.A. McDonald and W. Stuetzle An introduction to real-time graphical techniques for analyzing multivariate data	161
Van Dam, A. Solids modeling and rendering on workstations – a pictorial overview	169
Quarrie, D.R. Personal computers in high energy physics	175
Bock, R., R. Brun, O. Couet, J.C. Marin, R. Nierhaus, L. Pape, N. Saumon, C. Vandoni and P. Zanarini PAW – towards a physics analysis workstation	181
Aston, D. Towards a personal mainframe	191
Burnett, T.H. IDA: an interactive data analysis environment for high energy physics	195
Bassler, E. The graphical editor program: GEP	201
Bertrand, D. The DELPHI interactive analysis and tanagra	207
Manzo, J. On managing large scale projects: some simple principles for developing complex systems	215
Kellner, G. Development of software for ALEPH using structured techniques	229
Linnemann, J., J. Featherly, B. Gibbard, S. Kahn, S. Protopopescu, D. Cutts, J. Hoftun, C. Brown, A. Ito, A. Jonckheere, R. Raja, S. Hagopian, S. Linn, D. Zieminska, A. Zieminski, A. Clark, C. Klopfenstein, S. Loken, T. Trippe, S. Kunori, D. Buchholz, E. Gardella, Y. Ducros, A. Zylberstein, R. Engelmann, D. Hedin, K. Ng and K. Nishikawa The use of SA/SD methods in D0 software development	
Metcalf, M. FORTRAN 8X - the emerging standard	259
Russell, J.J. Programming languages: time for a change?	269
Johnson, A.S. FORTRAN preprocessors	275
Qian, Z., S. Tang, W. Zhao, S.M. Fisher, J. Harvey, M. Boano, J. Bunn, R. McClatchey, V. Emiliani P. Palazzi, R. Brazioli, A. Putzer, M.G. Green and R. Fantechi Use of the ADAMO data management system within ALEPH	283
Mount, R.P. Database systems for HEP experiments	299
Pohl, M. Data driven parallelism in experimental high energy physics applications	311
Maturana, G. Static allocation in massively parallel computers	319

Gaines, I., H. Areti, R. Atac, J. Biel, A. Cook, M. Fischler, R. Hance, D. Husby, T. Nash and T. Zmuda	
The ACP multiprocessor system at Fermilab	323
Biel, J., H. Areti, R. Atac, A. Cook, M. Fischler, I. Gaines, C. Kaliher, R. Hance, D. Husby, T. Nash and T. Zmuda Software for the ACP multiprocessor system	331
Sphicas, P.A. UA1 experience with 3081/E systems	339
Albanese, M., P. Bacilieri, S. Cabasino, N. Cabibbo, F. Costantini, G. Fiorentini, F. Flore, L. Fonti, A. Fucci, M.P. Lombardo, S. Galeotti, P. Giacomelli, P. Marchesini, E. Marinari, F. Marzano, A. Miotto, P. Paolucci, G. Parisi, D. Pascoli, D. Passuello, S. Petrarca, F. Rapuano, E. Remiddi, R. Rusack, G. Salina and R. Tripiccione The APE computer: an array processor optimized for lattice gauge theory simulations	345
Moatti, A., J. Goldberg and G. Memmi Parallel Monte Carlo calculations with many microcomputers	355
Grosdidier, G. A VAX-FPS loosely coupled array of processors	361
Glendinning, I. and A. Hey Transputer arrays as FORTRAN farms for particle physics	367
Lauer, R., A.J. Slaughter and E. Wolin A role for relational databases in high energy physics software systems	373
Olken, F., S.C. Loken, D. Rotem, A. Shoshani and T.G. Trippe Data management for high energy physics experiments – preliminary proposals	379
Menasce, D. and S. Sala The MIDA database of the E687 μstrip vertex detector	385
Steuer, M.F. Monitoring of project-progress via distributed database	391
Langeveld, W.G.J. Optical storage and its possible use in high-energy physics	395
Thompson, M., A. Varda and G. DeClute Two terabyte optical archival store	403
Chadwick, K., R. Hollebeek and P.K. Sinervo The organization and maintenance of the CDF offline code on IBM VM/CMS and DEC VAX/VMS operating systems	409
Wisinski, D.E. An environment for high energy physics code development	417
Youssef, S. Clustering with local equivalence relations	423
Brower, R., R. Giles and G. Maturana Development of scientific software in the LISP machine environment	427
Charity, T., R. McClatchey and J. Harvey Use of software engineering techniques in the design of the ALEPH data acquisition system	433

Struven, W. Networking through the new phone system the future of telecommunications	443
Ghiselli, A. A DECNET/IBM gateway for 3270 remote terminal access to IBM systems from VAX nodes of a DECNET network	447
Perotto, E. Network operating system	455
Delfino, M.C. Experience with the MAC data flow system	467
Johnstad, H. and J. Nicholls Producing and supporting sharable software	473
Stanescu, C. Standard and graphics libraries in on-line environment. A comparative study of performance	475
Johnston, W.E., D.E. Hall, F. Renema and D. Robertson Low cost scientific video movie making	
Abstracts	48:
List of participants	48

